

# NORYL GTX™ GTX975 resin

Polyphenylene Ether + PS + Nylon

SABIC Innovative Plastics Europe

## Message:

NORYL GTX975 is a 18% mineral filled material especially designed for in- or on-line painted exterior automotive trim part, e.g. tankflaps and corner panels. This material combines high stiffness and excellent temperature resistance with conductivity for electrostatic painting in an unique way.

| General Information                           |                              |                        |                 |
|-----------------------------------------------|------------------------------|------------------------|-----------------|
| Filler / Reinforcement                        | Mineral,18% Filler by Weight |                        |                 |
| Features                                      | Electrically Conductive      |                        |                 |
|                                               | High Heat Resistance         |                        |                 |
|                                               | High Stiffness               |                        |                 |
|                                               | Paintable                    |                        |                 |
| Uses                                          | Automotive Exterior Trim     |                        |                 |
| RoHS Compliance                               | RoHS Compliant               |                        |                 |
| Processing Method                             | Injection Molding            |                        |                 |
| Physical                                      | Nominal Value                | Unit                   | Test Method     |
| Density                                       | 1.20                         | g/cm <sup>3</sup>      | ISO 1183        |
| Melt Volume-Flow Rate (MVR) (280°C/5.0 kg)    | 10.0                         | cm <sup>3</sup> /10min | ISO 1133        |
| Molding Shrinkage - Flow <sup>1</sup>         | 1.1 to 1.3                   | %                      | Internal Method |
| Hardness                                      | Nominal Value                | Unit                   | Test Method     |
| Ball Indentation Hardness (H 358/30)          | 125                          | MPa                    | ISO 2039-1      |
| Mechanical                                    | Nominal Value                | Unit                   | Test Method     |
| Tensile Modulus                               | 4200                         | MPa                    | ISO 527-2/1     |
| Tensile Stress (Break)                        | 65.0                         | MPa                    | ISO 527-2/5     |
| Tensile Strain (Break)                        | 4.0                          | %                      | ISO 527-2/5     |
| Flexural Modulus <sup>2</sup>                 | 4000                         | MPa                    | ISO 178         |
| Flexural Stress                               | 110                          | MPa                    | ISO 178         |
| Impact                                        | Nominal Value                | Unit                   | Test Method     |
| Charpy Notched Impact Strength <sup>3</sup>   |                              |                        | ISO 179/1eA     |
| -30°C                                         | 3.0                          | kJ/m <sup>2</sup>      |                 |
| 23°C                                          | 3.5                          | kJ/m <sup>2</sup>      |                 |
| Charpy Unnotched Impact Strength <sup>4</sup> |                              |                        | ISO 179/1eU     |
| -30°C                                         | 35                           | kJ/m <sup>2</sup>      |                 |
| 23°C                                          | 40                           | kJ/m <sup>2</sup>      |                 |
| Notched Izod Impact Strength <sup>5</sup>     |                              |                        | ISO 180/1A      |
| -30°C                                         | 4.0                          | kJ/m <sup>2</sup>      |                 |
| 23°C                                          | 4.0                          | kJ/m <sup>2</sup>      |                 |
| Unnotched Izod Impact Strength <sup>6</sup>   |                              |                        | ISO 180/1U      |

| -30°C                                                                        | 35               | kJ/m <sup>2</sup> |                 |
|------------------------------------------------------------------------------|------------------|-------------------|-----------------|
| 23°C                                                                         | 40               | kJ/m <sup>2</sup> |                 |
| Thermal                                                                      | Nominal Value    | Unit              | Test Method     |
| Heat Deflection Temperature <sup>7</sup> (0.45 MPa, Unannealed, 100 mm Span) | 185              | °C                | ISO 75-2/Be     |
| Vicat Softening Temperature                                                  |                  |                   |                 |
| --                                                                           | 195              | °C                | ISO 306/B50     |
| --                                                                           | 200              | °C                | ISO 306/B120    |
| CLTE                                                                         |                  |                   | ISO 11359-2     |
| Flow : 23 to 60°C                                                            | 5.0E-5           | cm/cm/°C          |                 |
| Transverse : 23 to 60°C                                                      | 6.5E-5           | cm/cm/°C          |                 |
| Electrical                                                                   | Nominal Value    | Unit              | Test Method     |
| Volume Resistivity                                                           | 1.0E+3 to 1.0E+4 | ohms·cm           | Internal Method |
| Injection                                                                    | Nominal Value    | Unit              |                 |
| Drying Temperature                                                           | 100 to 110       | °C                |                 |
| Drying Time                                                                  | 2.0 to 3.0       | hr                |                 |
| Suggested Max Moisture                                                       | 0.020            | %                 |                 |
| Hopper Temperature                                                           | 80.0 to 100      | °C                |                 |
| Rear Temperature                                                             | 260 to 280       | °C                |                 |
| Middle Temperature                                                           | 280 to 300       | °C                |                 |
| Front Temperature                                                            | 300 to 320       | °C                |                 |
| Nozzle Temperature                                                           | 280 to 300       | °C                |                 |
| Processing (Melt) Temp                                                       | 300 to 320       | °C                |                 |
| Mold Temperature                                                             | 100 to 120       | °C                |                 |
| NOTE                                                                         |                  |                   |                 |
| 1.                                                                           | Tensile Bar      |                   |                 |
| 2.                                                                           | 2.0 mm/min       |                   |                 |
| 3.                                                                           | 80*10*4 sp=62mm  |                   |                 |
| 4.                                                                           | 80*10*4 sp=62mm  |                   |                 |
| 5.                                                                           | 80*10*4          |                   |                 |
| 6.                                                                           | 80*10*4          |                   |                 |
| 7.                                                                           | 120*10*4 mm      |                   |                 |

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#### Recommended distributors for this material

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